
TECHNICAL HANDBOOK FOR
ENVIRONMENTAL HEALTH AND ENGINEERING
VOLUME VIII - ENVIRONMENTAL HEALTH SERVICE
PART 111 - ENVIRONMENTAL MANAGEMENT

APPENDIX B - DEFINITIONS and ABBREVIATIONS

- A. **Abatement** - Any measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement includes but is not limited to:
- (1) The removal of lead-based paint and lead-contaminated dust, the permanent enclosure or encapsulation of lead-based paint, the replacement of lead-painted surfaces or fixtures, and the removal or covering of lead-contaminated soil; and
 - (2) All preparation, cleanup, disposal, and post-abatement clearance testing activities associated with such measures.
 - (3) Specifically, abatement includes, but is not limited to:
 - a. Projects for which there is a written contract or other documentation, which provides that an individual or firm will be conducting activities in or to a residential dwelling or child-occupied facility that:
 1. Shall result in the permanent elimination of lead-based paint hazards; or
 2. Are designed to permanently eliminate lead-based paint hazards and are described in paragraphs (1) and (2).
 - b. Projects resulting in the permanent elimination of lead-based paint hazards, conducted by firms or individuals certified in accordance with Sec. 745.226, unless such projects are covered by paragraph (4) of this definition;
 - c. Projects resulting in the permanent elimination of lead-based paint hazards, conducted by firms or individuals who, through their company name or promotional literature, represent, advertise, or hold themselves out to be in the business of performing lead-based paint activities as identified and defined by this section, unless such projects are covered by paragraph (4) of this definition; or
 - d. Projects resulting in the permanent elimination of lead-based paint hazards, that are conducted in response to state or local abatement orders.
 - (4) Abatement does not include renovation, remodeling, landscaping or other activities, when such activities are not designed to permanently eliminate lead-based paint hazards, but, instead, are designed to repair, restore, or remodel a given structure or dwelling, even though these activities may incidentally result in a reduction or elimination of lead-based paint hazards. Furthermore, abatement does not include interim controls, operations and maintenance activities, or other measures and activities designed to temporarily, but not permanently,

TECHNICAL HANDBOOK FOR
ENVIRONMENTAL HEALTH AND ENGINEERING
VOLUME VIII - ENVIRONMENTAL HEALTH SERVICE
PART 111 - ENVIRONMENTAL MANAGEMENT

reduce lead-based paint hazards.

- B. **Action Level** - A level of exposure set by OSHA which more action needs to be taken to protect workers' health. Lead's action level is a 30 $\mu\text{g}/\text{m}^3$ average for an 8-hour shift. If an employee may be exposed to this level, additional provisions such as blood lead testing and exposure monitoring at least every 6 months are required.
- C. **Blood lead threshold** - The lead content in a person's blood. A blood lead level greater than or equal to 10 $\mu\text{g}/\text{dL}$ is defined as hazardous to children by the Centers for Disease Control and Prevention. OSHA defines 50 $\mu\text{g}/\text{dL}$ as the blood lead level at which workers are removed from exposure.
- D. **Chalking** - The photo-oxidation of paint binders usually due to weathering that causes a powder to form on the film surface.
- E. **Child-occupied facility** - A building, or portion of a building, constructed prior to 1978, visited regularly by the same child, 6 years of age or under, on at least two different days within any week (Sunday through Saturday period), provided that each day's visit lasts at least 3 hours and the combined weekly visit lasts at least 6 hours, and the combined annual visits last at least 60 hours. Child-occupied facilities may include, but are not limited to, day-care centers, preschools and kindergarten classrooms.
- F. **Cleaning** - The process of using a HEPA vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to clean lead-contaminated dust from a surface.
- G. **Clearance examination** - Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control intervention, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based). The clearance examination is done to ensure that lead exposure levels do not exceed standards established by the EPA Administrator pursuant to Title IV of the Toxic Substance Control Act (These standards have not been set yet). Cleaning following the work described above must meet those standards.
- H. **Deciliter (dL)** - A deciliter is one tenth of a liter.
- I. **Deteriorated lead-based paint** - Any lead-based paint coating on a damaged or deteriorated surface or fixture, or any interior

TECHNICAL HANDBOOK FOR
ENVIRONMENTAL HEALTH AND ENGINEERING
VOLUME VIII - ENVIRONMENTAL HEALTH SERVICE
PART 111 - ENVIRONMENTAL MANAGEMENT

or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or otherwise becoming separated from the substrate.

- J. **Elevated Blood Lead level (EBL) child** - A child who has a blood lead level greater than or equal to 20 µg/dL.

- K. **Encapsulation** - Any covering or coating that acts as a barrier between lead-based paint and the environment. The durability of encapsulation relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate.

- L. **HEPA filter** - A High Efficiency Particulate Air Filter capable of removing particles of 0.3 microns or larger from air with at least 99.97 percent efficiency.

- M. **Inspection: see Paint Inspection**

- N. **Interim controls** - A set of measure designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards. Interim controls could include specialized cleaning to reduce lead-contaminated dust, repairs, maintenance, painting, temporary containment, ongoing monitoring of lead-based paint hazards or potential hazards, and the establishment and operation of management and resident education programs.

- O. **Investigation** - The process of determining the source of lead exposure for a child or other resident with an elevated blood lead level. An investigation includes at least a questionnaire, environmental sampling, and case management.

- P. **Lead-based paint** - Any paint, varnish, shellac or any other coating that contains lead with a concentration of at least 1.0 mg per cm² (as measured by laboratory analysis or XRF), or with at least 0.5 percent lead by weight or 5000 ppm (as measured by laboratory analysis).

- Q. **Lead-contaminated dust** - HUD recommends that indoor surface dust contain no more than 1080 µg/m² on floors, 5380 µg/m² on interior window sills, and 8610 µg/m² on window troughs. EPA is expected to set more stringent standards based on health as part of Title IV of the Toxic Substances Control Act.

- R. **Lead-poisoned child** - A child with a single blood lead level that is greater or equal than 20 µg per deciliter (dL).

- S. **Paint Inspection** - Surface by surface investigation of all

TECHNICAL HANDBOOK FOR
ENVIRONMENTAL HEALTH AND ENGINEERING
VOLUME VIII - ENVIRONMENTAL HEALTH SERVICE
PART 111 - ENVIRONMENTAL MANAGEMENT

painted surfaces, interior and exterior, using portable x-ray fluorescence (XRF) analyzers and/or laboratory analysis of paint samples to determine the presence of lead-based paint, and the provision of a report on the result. This only provides the lead content of painted surfaces, not whether the paint is a hazard or how you should deal with it. This can be combined with the risk assessment.

- T. **Permissible Exposure Limit (PEL)** - A time-weighted exposure limit set by OSHA which a worker may not legally exceed. Lead's PEL is 50 $\mu\text{g}/\text{m}^3$ during an 8-hour shift. If exposures are higher than this a written compliance plan must be written, appropriate respirators and protective clothing must be worn, blood monitoring and frequent exposure monitoring must be conducted, and housekeeping, hygiene and handwashing must be enforced.
- U. **Risk assessment** - An on-site investigation to discover any lead-based paint hazards. Risk assessments include visual inspection, limited environmental samplings of dust, soil, and deteriorated paint. A report of the results identifies acceptable actions for controlling any lead-based paint hazards identified. Have a qualified risk assessor conduct this assessment. Risk assessments and paint inspections can be combined.
- V. **Target housing** - Any housing constructed before 1978 with exception; dwellings that do not contain bedrooms, or dwellings developed specifically for the elderly or the disabled (unless a child under 6 years resides or is expected to reside in the dwelling).
- W. **Treatment** - Any method used to control lead-based paint hazards. This may include interim controls, abatement, and removal.
- X. **Microgram (Fg)** - A microgram is one one-millionth of a gram.
- Y. **X-Ray Fluorescence (XRF) Analyzer** - An instrument that measures lead concentration in milligrams per square centimeter using x-ray fluorescence.